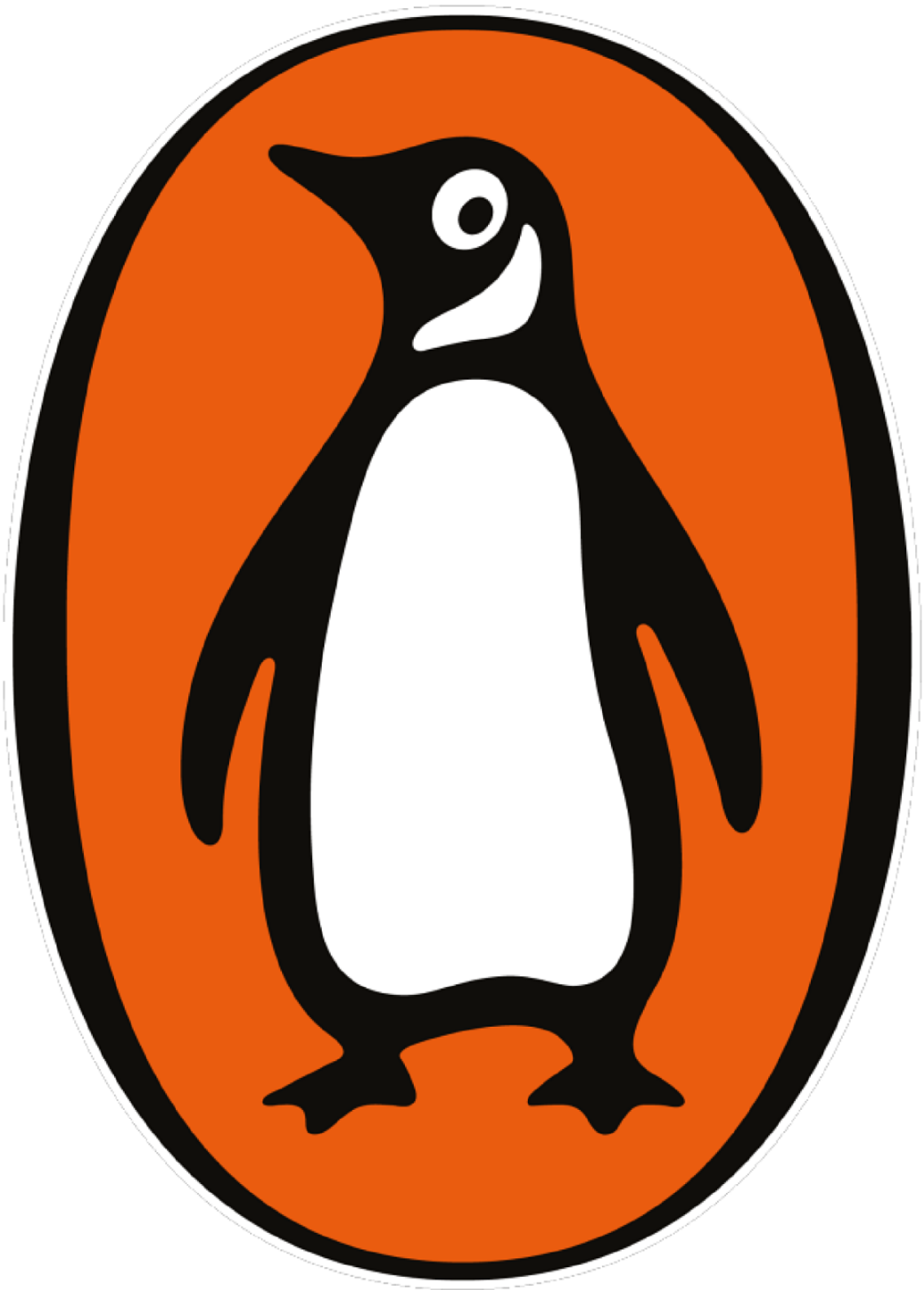

Contents

PENGUIN LIFE

TEACH YOURSELF TO THINK

Edward de Bono invented the concept of lateral thinking. A world-renowned writer and philosopher, he is the leading authority in the field of creative thinking and the direct teaching of thinking as a skill. In the decades since Dr de Bono introduced lateral thinking, the concept has become so entrenched in our language that it is used equally in physics lectures, television comedies or brainstorming sessions. His key contribution has been his understanding of the brain as a self-organizing system. His work spans generations, continents and belief systems, and is equally influential in the boardrooms of leading businesses such as Apple and British Airways as on the shelves of classrooms in rural Africa.

Dr de Bono has written more than sixty books, in forty languages, with people now teaching his methods worldwide. He has chaired a special summit of Nobel Prize laureates, had faculty appointments at the universities of Oxford, London, Cambridge and Harvard, and been hailed as one of the 250 people who have contributed most to mankind.

Dr de Bono's classic bestsellers include *Six Thinking Hats, Lateral Thinking, I Am Right You Are Wrong, How To Be More Interesting, Teach Yourself to Think, Teach Your Child How to Think* and *Simplicity*.

www.debono.com

Why?

I breathe. I walk. I talk. I think.

I do not have to think about these things, so why should I think about thinking? Thinking is natural. You pick it up as you go along. Intelligent people can think without having to learn to think. Other people cannot think no matter what they do. What is wrong with that view?

Because ...

Because thinking is the most fundamental human skill.

Because your skill in thinking will determine your happiness and your success in life.

Because you need thinking to make plans, take initiatives, solve problems, open up opportunities and design your way forward.

Because without the ability to think you are like a cork floating along on a stream with no control over its destiny.

Because thinking is fun and enjoyable – if you learn how to make it so.

Because thinking and intelligence are quite separate. Intelligence is like the horsepower of a car. Thinking is like the skill of the car driver. Many highly intelligent people are poor thinkers and get caught in the 'intelligence trap'. Many less intelligent people have developed a high degree of skill in thinking.

Because thinking is a skill that can be learned, practised and developed. But you have to want to develop that skill. You need to learn how to ride a bicycle or drive a car.

Because traditional education at school and university only teach one aspect of thinking.

What about feelings and values?

You may believe that feelings and values are the most important things in life.

You are right.

That is why thinking is so very important.

The purpose of thinking is to deliver to you the values you seek just as the purpose of a bicycle is to get you to where you want to go. A bicycle uses less energy, gets you there faster and allows you to go much further. So thinking allows you to enjoy your values more effectively.

You are locked in a room. You desperately want to get out. You want freedom. Your feelings are very strong. Which is the more useful, this very strong feeling or a key to the lock?

Feelings without the means to carry them out are not much good. At the same time, the key without the desire to leave the room is also not much good.

We need values, feelings and thinking. Feeling is no substitute for thinking. Thinking without values is aimless.

This book is about thinking. Values and feelings are equally important but insufficient without thinking.

Foreword

In writing this book I had to choose between writing a complicated and comprehensive book which would cover all aspects of thinking and writing a much simpler and more accessible book. In the end, the decision was made by the title of the book: *Teach Yourself to Think*. This was to be a book for anyone who was interested in further developing his or her skill in thinking. Few people would be interested in picking up or reading through a complicated book. So I have chosen to keep it simple and practical.

I know from experience that some commentators are terribly upset by simplicity. Such people feel that something simple cannot be serious. Such people are also frightened of simplicity because it threatens the complexity which it is their job to explain. If something is indeed simple then they are without a job.

My preference has always been for simplicity. I have always sought to make things as simple as possible. That is why the thinking 'tools' that I designed have been taught equally to six-year-olds in rural black schools in South Africa and to the top executives of the world's largest corporations.

The very widely used *Six Thinking Hats* framework is very simple in principle but very powerful in use. The framework provides a practical alternative to the traditional argument system that has been in use for 2,500 years. That is why this framework is now being taken up both in education and in business and government areas.

The *L-Game* was invented as a result of a challenge by a famous Cambridge mathematician, Professor Littlewood, to invent a game in which each player had only one playing piece. The game has now been analysed on computer and is a 'real game' (no winning strategy which the first player could use). I recently invented an even simpler game, *The Three-spot Game*.

Above all, simplicity is easy to learn and to use.

Who will be the readers of this book? Over the years I have written many books on thinking and it is impossible to predict who the readers will be. The letters I have received suggest that the readers range very widely indeed. The common thread is motivation and an interest in thinking. I believe that the mass media (TV, radio and press) seriously underestimate the intelligence of the *mass* market and believe that this market only wants fun and moment-to-moment distraction. That has not been my experience.

There are people who are very complacent about their thinking. Such people believe they have nothing to learn. They usually win arguments and believe there is nothing further to thinking than having and defending a point of view.

There are people who are highly intelligent and do not make mistakes in their thinking. They believe that intelligence is enough and that thinking without mistakes is good thinking.

There are people who have given up on thinking. They have not done particularly well at school and they are no good at solving 'puzzles'. So they come to believe that thinking is not for them. They are content to get by, day to day, as best they can.

Complacency is the enemy of all progress. So is resignation. If you believe you are perfect, then you make no effort to get better. If you have given up, you also make no effort.

This book is directed at those who feel that thinking is an everyday, practical, messy and confusing matter. They want to improve their thinking in order to make it simpler and more effective. They want to have thinking as a skill which they can direct to any matter they choose.

Introduction

I advise you to skip this section. It is rather more complicated than the rest of the book and may give you the wrong impression about the rest of the book. For some readers, however, I need to include this section to point out why our traditional thinking habits are excellent but inadequate. The rear wheels of a motor car are excellent but inadequate on their own. We have developed one aspect of thinking and we are very proud of this and very happy with this. It is time we realized that this aspect is excellent but inadequate.

This introduction is also necessary to 'frame' the rest of the book.

Imagine a kitchen in which a lot of food is piled up on a table in the centre of the room. The cook proceeds to cook or 'process' the food. The cook is very skilful and makes a good job of it. There are no mistakes in the cooking.

Then we ask: how was this food chosen; how was it grown; how was it packaged; how was it brought to the kitchen? In other words we shift attention from the cooking process to the ingredients themselves.

It has been the same with thinking. We have paid a lot of attention to the 'processing' part of thinking. We have developed excellent mathematics, statistics, computers and all the various forms of logic. You feed in the ingredients, the processing takes place and out comes the result. But we have paid far less attention to where the ingredients come from. How were they chosen and how were they packaged?

The ingredients for thinking are provided by *perception*. Perception is the way we look at the world. Perception is the way we carve up the world into chunks that we can handle. Perception is the choice of matters to consider at any one time. Perception chooses whether to regard a glass as half empty or half full.

Most of everyday thinking takes place in the perception stage of thinking. It is only in technical matters that we apply such processes as mathematics.

In the future, computers will probably take over all the processing aspects of thinking, leaving to humans the extremely important aspect of perception. The excellence of processing in the computers will not make up for inadequacies in perception. So the perception part of thinking will be even more important in the future.

Most of the errors of thinking, outside puzzles, are not errors of logic at all but errors of perception. We see only part of a situation. Or, we see a situation only in one particular way. Yet we have persisted in believing that logic is the most important part of thinking and have done almost nothing about perception. There are reasons for this.

When Western thinking habits were being established at the end of the Dark Ages and the beginning of the Renaissance, much of the thinking was being done by church people, since they were the only group that had maintained throughout the Dark Ages an interest in scholarship and thinking. Also, at that time, the church was very dominant in society and ran universities, schools, etc. So the 'new thinking' that came in with the Renaissance was mainly applied to theological matters and to dealing with heresies. In such areas there were tight definitions of 'God', 'justice' and such matters. It became a matter of working 'logically' with such fixed definitions. So perception was not an important part of this sort of thinking. Perception was also far too subjective in such theological matters. There had to be basic agreement on the starting terms.

We have also believed that *logic* itself should be able to sort out perceptions. This is rubbish because logic is an enclosing system which can only work with what is there. Perception is a generative system which opens up to what is not there. This misconception about the power of logic is one of the major faults of traditional thinking. The misconception arises from the failure to distinguish between foresight and hindsight. It is perfectly true that in hindsight logic can point out inadequacies in perception but that is not the same as pointing out these inadequacies in the first place.

Every valued creative idea will always be totally logical in hindsight. The numbers 1 to 100 can be added together in about five seconds using an idea that is completely logical in hindsight – but getting to that idea needs creativity.

What are the chances of an ant on the trunk of a tree getting to one particular leaf? At every branch point the chances diminish because the ant might have taken one of the other branches. In an average tree the chances are about 1 in 8,000. Now imagine the ant sitting on that leaf. What are the chances of that ant getting to the trunk of the tree? The chances are 1 in 1 or 100 per cent. If the ant simply goes forwards and never doubles back there are no branches. It is exactly the same with hindsight. What is obvious in hindsight may be invisible in foresight. The failure to realize this is responsible for many of our misconceptions about thinking.

Perhaps the main reason why we have not paid more attention to perception is that until about twenty years ago we had no idea how perception worked. We believed, quite wrongly, that perception and processing both worked in *passive-surface* information systems. In such systems the information and the surface on which the information is recorded are passive and have no activity of their own. There is a need

for an external processor to organize the information, to move it around and to extract sense from it.

We now believe that perception occurs in a self-organizing information system operated by the nerve networks in the brain. This means that the information and the surface have their own activity and the information arranges itself as groups, sequences and patterns. The process is similar to rain falling on a landscape and organizing itself into streams, tributaries and rivers. Those interested in such processes should read my books *The Mechanism of Mind* [fn1] and *I am Right – You are Wrong.* [fn2]

The Gang of Three

After the fall of Rome in AD 400 there came the Dark Ages in Europe. The learning, thinking and scholarship of the Roman Empire was largely lost. For example, Charlemagne, who at one time was the most powerful ruler in Europe, could not read or write. The Dark Ages ended with the Renaissance, which was triggered by the rediscovery of classic Greek and Roman thinking (partly through Arabic texts coming into Europe through Spain).

This 'new' thinking was a powerful breath of fresh air. Humankind was given a more central position in the universe. Humankind could use logic and reason to work things out instead of having to accept everything as part of a religious faith. Not surprisingly this new thinking was eagerly embraced by the *Humanists* or non-church thinkers. More surprisingly, this new thinking was also embraced by church thinkers. So this new/old thinking became the dominant thinking of Western culture and has remained so to this day.

What was the nature of this new/old thinking? We need to go back to the *Gang of Three* who fashioned this thinking. They lived in Greece in Athens between about 400 BC and 300 BC. This Gang of Three was made up of Socrates, Plato and Aristotle.

SOCRATES

Socrates never set out to be a constructive thinker. His purpose was to attack and to remove 'rubbish'. Most of the arguments in which he was involved (as written up by Plato) ended with no positive outcome at all. Socrates would show that all suggestions offered were false but would not then offer a better idea. Essentially he believed in argument (or dialectic). He seemed to believe that if you attacked what is wrong, then eventually you would be left with the truth. This has left us with our obsession with criticism. We believe that it is much more important to point out what is wrong than to construct what is useful.

PLATO

Plato was an Athenian patrician who, as a young man, knew Socrates. Socrates never wrote anything but Plato wrote up Socrates as a character in dialogues. Plato did not much believe in Athenian democracy, which he believed to be a rabble too easily swayed by populist arguments. Plato seemed to be an admirer of the very fascist Sparta. Plato was influenced by Pythagoras, who had demonstrated ultimate truths in mathematics, and Plato believed there were ultimate truths everywhere if only we looked hard enough for them.

Plato was also reacting against the 'relativism' of some of the Sophists, who believed that something was not good or bad in itself but only in relation to a system. Plato realized that society could never be run on such a complicated basis. Plato was a fascist.

From Plato came our obsession with the 'truth' and the belief that we could establish this logically. This belief has been a powerful motivator to all subsequent thinking.

ARISTOTLE

Aristotle was a pupil of Plato's and also the tutor of Alexander the Great. Aristotle tied everything together as a powerful logical system based on 'boxes'. These were definitions or classifications based on our past experience. So whenever we encountered something we had to 'judge' into which box that thing fitted. If necessary, we analysed the situation down into smaller parts to see if we could fit these into standard boxes. Something was either in a box or 'not' in a box. It had to be one or the other and could not be anything else. From this came a powerful logic system based on 'is' and 'is not' and the avoidance of contradictions.

In summary, from the Gang of Three came a thinking system which was based on:

- analysis
- judgement (and boxes)
- argument
- criticism.

We find our way around by fitting new experiences into the boxes (or principles) derived from the past. This is perfectly adequate in a stable world where the future is the same as the past – but totally inadequate in a changing world where the old boxes do not apply. Instead of judgement we need to design our way forward.

While *analysis* does solve a great many problems, there are other problems where the cause cannot be found and if found cannot be removed. Such problems will not yield to yet more analysis. There is a need for design. We need to design a way forward, leaving the cause in place. Most of the major problems in the world will not be solved by yet more analysis. There is a need for creative design.

The traditional thinking system is very lacking in constructive energy, creative energy and design energy. Description and analysis are not enough.

If this traditional system is indeed so limited, then how is it that Western culture has made such tremendous progress in science and technology?

Plato's search for the truth has been a prime motivating factor. Aristotle's classification has also helped. Socratic questioning and attack has played a part. But by far the most important factor has been the *possibility* system. This is an immensely important part of thinking. The possibility system gives hypotheses in science and visions in technology. That is what has driven Western achievement. Chinese culture, which was far ahead of Western technical culture two thousand years ago, came to a halt because they moved into description and never developed the possibility system.

Even today in schools and universities very little attention is given to the 'possibility' system, which is so very important a part of thinking. This is because there is the belief that thinking is all about the 'truth' and 'possibility' is not truth.

Later in this book I intend to give a lot of attention to the possibility system because it is so very important.

Argument is a rather poor way of exploring a subject because each side soon becomes interested only in winning the argument rather than in exploring the subject. At best there might be a synthesis of thesis (one side) with antithesis (the other side) to give a synthesis, but this is only one possibility amongst many which would otherwise have been designed. Instead of argument we can have *parallel thinking* [fn3] in which all parties seek, in parallel, to explore the subject (for example with the Six Hat framework [fn4]).

So we have a traditional thinking system which is excellent as far as it goes but inadequate for the following reasons:

1. It does not adequately deal with 'perception', which is by far the most important part of thinking in everyday affairs.

2. Argument is a poor way of exploring a subject and sets up unnecessary adversarial positions.

3. The 'boxes' derived from the past may not be adequate to deal with a changing world, which is very different from the past.

4. Analysis is insufficient to solve all problems. There is a need to supplement it with *design.*

5. The notion that criticism is enough and that somehow useful progress will be made is absurd.